DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024697 Address: 333 Burma Road **Date Inspected:** 18-Jun-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

CWI Name: Mr. SHI LIE **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG Segment**

Summary of Items Observed:

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

1. INPROCESS:

Orthotropic Box Girder (OBG) at Bay-14:

ZPMC welding personnel performing Shielded Metal Arc Welding of Fillet welds joining the bottom plate I-rib weld joint located on 14W. The weld is designated as SEG3020S-119. The welder is identified as 066261. ZPMC QC Mr. AN QING XING was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2112-FCM-1.

Segment Tagging in Splice plate connection plate

2. NDT:

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Magnetic Particle Testing (MT):

MT carried out for the ZPMC submitted Notification No 09517.

This QA Inspector randomly witnessed and performed Magnetic Particle Testing (MT) of approximately 15% of the area that has been previously tested and accepted by ZPMC MT technicians. This QA Inspector generated a TL-6028 MT report on this date. The members are identified as fillet & complete joint penetration of splice plate connection plate weld joint located on Bay-14. The weld designation numbers is as follows:

- 1. SA7029-001-003
- 2. SA7029-001-007
- 3. SA3037-002-001
- 4. SA3037-002-003
- 5. SA3037-002-005
- 6. SA3037-002-007
- 7. SA3037-002-009
- 8. SA3037-002-010
- 9. SA3037-003-001
- 10. SA3037-003-003
- 11. SA3037-003-005
- 12. SA3037-003-007
- 13. SA3037-003-009
- 14. SA3037-003-010
- 15. SA3037-004-001
- 16. SA3037-004-003
- 17. SA3037-004-005
- 18. SA3037-004-007.

Ultrasonic Testing (UT) (A, B, C and D-Scan):

UT carried out for the ABF submitted UT Notification No 06182011-1.

This QA Inspector performed Ultrasonic testing (UT) 10 % of the area that has been previously tested and accepted by ABF Quality control personnel. This QA inspector generated a UT (TL-6027) report on this date. The members are identified as butt joint between side plate to bottom plate weld joint located on 14W at counter weight side. According to rejection criteria of "D" Scan procedure that Caltrans QA did not find any Rejected indication at scanning area. The Weld Designation is as follows:

1. SEG3020AY-013.

UT carried out for the ABF submitted UT Notification No 06182011-1.

This QA Inspector performed Ultrasonic testing (UT) 10 % of the area that has been previously tested and

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

accepted by ABF Quality control personnel. This QA inspector generated a UT (TL-6027) report on this date. The members are identified as corner joint between deck plate to edge plate weld joint located on 14W at counter weight side. According to rejection criteria of "D" Scan procedure that Caltrans QA did not find any Rejected indication at scanning area. The Weld Designation is as follows:

1. SEG3020*-013.

UT carried out for the ABF submitted UT Report No UT-14W-007R1.

This QA Inspector performed Ultrasonic testing (UT) 10 % of the area that has been previously tested and accepted by ABF Quality control personnel. This QA inspector generated a UT (TL-6027) report on this date. The members are identified as butt joint between side plate to bottom plate weld joint located on 14W at counter weight side. According to rejection criteria of "D" Scan procedure that Caltrans QA did not find any Rejected indication at scanning area. The Weld Designation is as follows:

1. SEG3020AY-014.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Pillai,Santosh	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer